



**LYNRED®**

See Beyond Horizons



# ATTO640D-04/04+/04W™

640 x 480 – 12µm

INFRARED DETECTOR

Based on continuous customers feedback, LYNRED has improved its 12µm technology for the ATTO products family.

Ideal for SWaP applications, it is the smallest VGA thermal sensor on the market.

## SEAMLESS INTEGRATION FOR LIMITLESS APPLICATIONS



**BEST IN CLASS SWAP CHARACTERISTICS**



**FLUID AND CRISP IMAGES**



**BETTER IQ AND EASIER INTEGRATION**

LEISURE

SURVEILLANCE

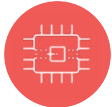
THERMOGRAPHY

DEFENSE



ORDERING REFERENCE: ATTO640D-04™  
ATTO640D-04+™  
ATTO640D-04W™

# ●● SEAMLESS INTEGRATION FOR LIMITLESS APPLICATIONS ●●



SWaP



IMAGE QUALITY



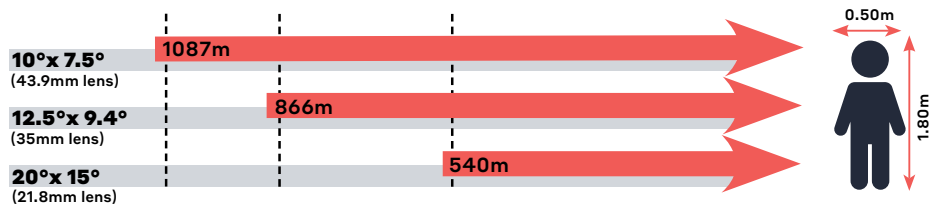
LOW POWER  
CONSUMPTION



SEAMLESS  
INTEGRATION

	ATTO640D-04™	ATTO640D-04+™	ATTO640D-04W™
<b>BEST IN CLASS SWAP CHARACTERISTICS</b>			
Reduced optic size and cost	■ 12µm pixel pitch		
Smallest VGA sensor on the market	■ < 17.3 x 17.3 x 4.9 mm <sup>3</sup> (including J-Lead pins) ■ With LYNRED wafer-level packaging technology		
Low-power for optimal battery life	■ < 320 mW @ 60 Hz (digital output mode) ■ < 150 mW @ 60 Hz (analog output mode)		
<b>FLUID AND CRISP IMAGES</b>			
Resolution	■ 640 x 480		
Sharp contrast	■ < 40 mK (30Hz, f/1, 300K)	■ < 35 mK (30Hz, f/1, 300K)	■ < 45 mK (30Hz, f/1, 300K)
	■ [-40°C; +85°C] operating temperature range		
Fluid and smooth image	■ Frame rate up to 60Hz		
High uniformity	■ Operability :		
	■ > 99%	■ > 99.8%	■ > 99.8%
<b>SEAMLESS INTEGRATION</b>			
High volume compliant	■ Surface-mount Device (J-Lead44) compatible with standard off-the-shelf socket		
	■ Wafer-level packaging & high-volume assembly processes		
	■ Compatible with JEDEC's reflow and handling standards		
	■ Protective Germanium window for ATTO640D-04W™		
QVGA-compatible product platform	■ Footprint compatible with QVGA products: PICO384™ series (17µm) and ATTO320™ (12µm)		
Flexible configuration	■ Full access to sensor features (PC) ■ Free-run or external trigger mode		
Output format	■ 14-bit parallel Digital		
	■ Analog		

## ATTO640D-04™: Human recognition distance with f/1 optics (perfect OTF & 88% typical transmission)



Range for Johnson's criteria @ 50% probability, 2K DeltaT vs background, perfect atmosphere, real LYNRED pixel MTF, sensor NETD = 35mK



### LYNRED HEADQUARTERS DEVELOPMENT & PRODUCTION CENTER

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